DOCUMENT RESUME

ED 443 062 CG 030 140

AUTHOR Roberts, Donald F.; Christenson, Peter G.

TITLE "Here's Looking at You, Kid": Alcohol, Drugs, and Tobacco in Entertainment Media. A Literature Review Prepared for The National Center on Addiction and Substance Abuse at Columbia University.

INSTITUTION Columbia Univ., New York, NY. National Center on Addiction and Substance Abuse.
SPONS AGENCY Henry J. Kaiser Family Foundation, Menlo Park, CA.
REPORT NO 99-1452-01
PUB DATE 2000-02-00
NOTE 46p.
AVAILABLE FROM Copies of this publication (Document #3000) are available by calling the Kaiser Family Foundation's publication request line at 800-656-4533, or through their website at http://www.kff.org.
PUB TYPE Reports - Descriptive (141)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adolescents; Children; Content Analysis; *Drinking; *Drug Use; *Literature Reviews; *Mass Media Effects; Music; Television; *Tobacco
IDENTIFIERS *Entertainment Industry; Movie Attendance

ABSTRACT

Over the past several decades, both health researchers and communication researchers have worried about the degree to which media seem to legitimize, glamorize, or otherwise encourage a variety of health-related risk behaviors, and conversely, the degree to which media can be used to help prevent these behaviors. These behaviors have ranged from poor dietary habits, violence, and unsafe sexual practices, to the primary concern of this review: consumption of such risk-related substances as alcohol, tobacco, and illicit drugs. The fundamental premise of such concerns is that to the extent that young audiences encounter media portrayals of substance use, their health-related beliefs, attitudes, and behavior may be influenced-for better or for worse, depending on the nature of the portrayal. This report examines research on the frequency and nature of media portrayals of the use of alcohol, tobacco, and illicit drugs, and--more briefly--the few studies that have examined the effects of exposure to such portrayals, particularly effects on children and adolescents. Results show that for television, alcohol remains the substance most likely to be portrayed; tobacco use has decreased markedly from the 1950s through the 1980s, yet has risen during the 1990s; and illicit drug use portrayals appear to be more frequent now than in the 1970s. Results for movies show that alcohol consumption occurs in almost all movies and has for many years; tobacco-use trends appear to parallel those for television; and illicit drugs seem to parallel the increase seen in television. Seventeen percent of current songs make reference to alcohol, 3% refer to tobacco use, and 18% include references to drugs. Recommendations for future research are discussed. (Contains 55 references.) (MKA)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 443 062

"Here's Looking at You, Kid"

Alcohol, Drugs and Tobacco in Entertainment Media

A Literature Review Prepared for The National Center on Addiction and Substance Abuse at Columbia University

Donald F. Roberts, Ph.D.,
Stanford University
Peter G. Christenson, Ph.D.,
Lewis & Clark College

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
B. MADDING
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC).

THE HENRY J. KAISER FAMILY FOUNDATION
Funded by The Henry J. Kaiser Family Foundation

CG030140

BEST COPY AVAILABLE

February 2000

"Here's Looking at You, Kid"

Alcohol, Drugs and Tobacco in Entertainment Media

A Literature Review Prepared for
The National Center on Addiction and Substance Abuse
at Columbia University

by:

Donald F. Roberts, Ph.D.,
Stanford University

Peter G. Christenson, Ph.D.,
Lewis and Clark College

THE HENRY J. KAISER FAMILY FOUNDATION

Funded by the Kaiser Family Foundation

The Kaiser Family Foundation, based in Menlo Park, California, is a nonprofit, independent national health care philanthropy and is not associated with Kaiser Permanente or Kaiser Industries.

The National Center on Addiction and Substance Abuse at Columbia University is the only national organization that brings together under one roof all the professional disciplines needed to study and combat all types of substance abuse as they affect all aspects of society.

"Casablanca" cover photo courtesy of Culver Pictures, Inc.

TABLE OF CONTENTS

INTRODUCTION 1
- CHILDREN'S USE OF MEDIA 2
- MEDIA EFFECTS 2
- CONTENT ANALYSES 4

PORTRAYALS OF SUBSTANCE USE ON TELEVISION 9
- ALCOHOL 9
- TOBACCO 11
- ILLICIT DRUGS 12

PORTRAYALS OF SUBSTANCE USE IN MOVIES 14
- ALCOHOL 14
- TOBACCO 15
- ILLICIT DRUGS 17

PORTRAYALS OF SUBSTANCE USE IN POPULAR MUSIC 18
- ALCOHOL 18
- TOBACCO 20
- ILLICIT DRUGS 21

TRENDS IN SUBSTANCE PORTRAYALS 23
- TELEVISION 24
- MOVIES 24
- POPULAR MUSIC 25

RESEARCH ON EFFECTS OF SUBSTANCE PORTRAYALS 26

RECOMMENDATIONS FOR FUTURE RESEARCH 33
- ANALYSIS OF CONTENT 33
- MESSAGE PROCESSING AND INTERPRETATION 34
- RESEARCH ON EFFECTS 35

REFERENCES 37

INTRODUCTION

Concern with whether and how media content affects the health behavior of youth is not new. Over the past several decades, both health researchers and communication researchers have worried about the degree to which media seem to legitimize, glamorize, or otherwise encourage a variety of health-related risk-behaviors, and, conversely, the degree to which media can be used to help prevent these behaviors. These behaviors have ranged from poor dietary habits, violence, and unsafe sexual practices, to the primary concern of this review: consumption of such risk-related substances as alcohol, tobacco, and illicit drugs. The fundamental premise of such concerns is that to the extent that young audiences encounter media portrayals of substance use, their health-related beliefs, attitudes, and behavior may be influenced – for better or for worse, depending on the nature of the portrayal.

In order to help shed greater light on the possible impact of portrayals of substance abuse in popular media, this report examines research on the frequency and nature of media portrayals of the use of alcohol, tobacco, and illicit drugs, and – more briefly – on the few studies that have examined the effects of exposure to such portrayals, particularly effects on children and adolescents.

In general, whether concerns about the impact of media are well grounded requires evidence of three different kinds – evidence relating to exposure, to effects, and to content:

- First, it must be demonstrated that audiences are exposed to the media in question: Do young audiences consume movies? Music? Television? To what extent?
- Second, it must be demonstrated that exposure to media content can, in fact, influence how individuals think about and act in their worlds: Is there evidence that, given expo-

sure, media content affects audience beliefs, attitudes or behaviors? If so, what kinds of content? Which audience members?

- Third, it is necessary to demonstrate that the kinds of messages about which concern is expressed do indeed exist in the media. Are substances and their use portrayed with any great frequency? If so, how are they portrayed? Are they portrayed in ways that might be expected to increase or decrease the likelihood of substance use?

Children's use of media

The first question, regarding children's and adolescents' exposure to media, has recently been addressed by a comprehensive study of American youth's media behavior. A Kaiser Family Foundation study (Roberts, Foehr, Rideout & Brodie, 1999) surveyed a national sample of youngsters about numerous facets of their use of television, videos, movies, radio, CDs and tapes, computers, and print media. The study found that the average American child between the ages of 2 and 18 years spends 5 ½ hours per day with media; the number increased to 6 ¾ hours among children between 8 and 18 years. The study also found that television, videos, movies, and music account for the lion's share of youth's media exposure. Over 55% of their media budget is devoted to screen media; over 20% is devoted to music media. In short, there is no question that most American youth are heavily exposed to popular media content.

Media effects

In general, much of the past 50 years of communication research has addressed the second question, concerning media effects. A large research literature now demonstrates that mass media play a significant role in the lives of U.S. children. Literally thousands of empirical studies have documented significant relationships between exposure to various

kinds of media content and youngsters' knowledge, beliefs, attitudes, and behaviors. The research has examined issues and topics ranging from learning the alphabet to sex-role stereotypes, from violence to helping, from sex and sexuality to citizenship and politics, from consumer behavior to health behavior...and much more. Moreover, hundreds of these studies have employed experimental methods – research designs that leave little doubt that exposure to media content *causally* contributes to subsequent knowledge, beliefs, attitudes, and/or behavior related to the content portrayed. Arguably, most scholars engaged in research on the influence of media on children and adolescents concur that mass media rank among the most important socialization agents influencing today's youth (for reviews see Christenson & Roberts, 1983, 1998; Comstock, Chaffee, Katzman, McCombs & Roberts, 1978; Comstock with Paik, 1991; Federman, Carbone, Chen & Munn, 1996; Henriksen & Roberts, in press; Huston, Donnerstein, Fairchild, Feshbach, Katz, Murray, Rubinstein, Wilcox & Zuckerman, 1992; Roberts, 1993, 2000; Roberts & Maccoby, 1984; Strasburger, 1995; Wartella & Reeves, 1987; Van Evra, 1990).

Of course, it must be acknowledged that simply being exposed to certain media portrayals does not ensure that young audiences will be influenced – or if influenced, that all members of the audience will be affected similarly. Just as a teacher's lesson or a physician's instructions often elicit varying responses among different students or patients, the same media content is often responded to quite differently by different audience subgroups. "The ultimate effects of media exposure depend on multiple factors: how individuals interpret messages, the extent to which the messages are contradicted or supported by other sources, the dynamics of parent-child interaction, peer influence, social and cultural background, and so forth" (Roberts, Henriksen & Christenson, 1999, p. 5). Nevertheless, it is also important to recognize that young viewers are likely to be influenced by media portrayals to the extent

that the depictions occur frequently, in ways that make them highly salient, and/or in contexts which make the depicted behavior seem socially acceptable, useful, legitimate, positive, or normative – simply "the way things are."

Content analyses

This points to the importance of the third type of study – *systematic* examinations of manifest media content. When social issues spur concerns about how media portray particular issues or kinds of behavior (e.g., violence, sex, gender roles, substance use), there can be a tendency for "concerned publics" to perceive content trends that hone the edges of their own axes – that is, for their perceptions to be biased (see, for example, Vallone, Ross & Lepper, 1985). Only systematic content analyses can provide valid estimates of the frequency and nature of specific content, regardless of the issue. In the current context, the question is: How often and in what ways do media convey information about substances and substance use? If substance use appears frequently and is portrayed positively in television, movies, and music, then it is reasonable to hypothesize that these portrayals may influence young people to experiment with alcohol, tobacco, and/or illicit drugs. Conversely, if substances are portrayed relatively rarely, or if they are depicted in ways that discourage use, then it make little sense to attribute to them a major role in the promotion of substance use/abuse. Clearly, whether and how substance use is portrayed in media needs to be carefully mapped. A number of studies conducted since the late 1970s have attempted to describe how different media portray the use of different substances. Unfortunately, many of these have provided little more than counts of the frequency of substance use appearances.

McLeod and Reeves (1980) note that theories of media effects are helpful because they specify the psychological and/or social mechanisms through which media content is thought

to influence individuals' beliefs, attitudes, and behaviors. Such specification is valuable to content analysis because it helps to identify content characteristics that may operate to activate and/or mediate those psychological or social mechanisms (also see Roberts & Maccoby, 1984). That is, the variables a given theoretical approach proposes as influential are the ones it makes sense to include when examining how media portray any given issue or behavior. For example, if a model of effects is based on frequency of exposure (i.e., the more one is exposed to a particular kind of message, the more likely that message is to be learned or accepted), then a critical content attribute is simply how often that message occurs. Similarly, if a model of effects posits that *how* a behavior is portrayed makes a difference in the likelihood individuals will learn and/or perform it, then it makes sense to consider *how* a particular behavior is depicted – who enacts it, for what reason, with what consequences, and so forth. Consider, for example, the concept of "vicarious reinforcement." According to Bandura (1986), seeing a particular behavior rewarded or punished on screen (vicarious reinforcement) influences learning much as does being directly rewarded or punished for enacting that behavior. To the extent that such a prediction receives empirical support, it makes sense that content analyses should examine whether and how media portray consequences for whatever behavior is of interest. In other words, media effects theories constrain one to consider *how* media content makes a difference; this, in turn, should lead content analysts to define and assess those particular content attributes that, theoretically, play an important role in the media influence process.

Brown and McDonald (1995) note that two theoretical approaches have guided the lion's share of media effects research on children and adolescents: cultivation theory (Gerbner, 1970; Gerbner, Gross, Morgan & Signorielli, 1994) and the observational learning compo-

nent of social cognitive theory (Bandura, 1986). These two theoretical models approach media effects from two somewhat different perspectives.

Fundamentally, cultivation theory argues that (a) media (especially television) provide a relatively consistent (albeit frequently inaccurate) world view that varies from "reality" on many dimensions, and (b) that the more they are exposed to the media, the more individuals are likely to accept the media's world view as an accurate depiction (see, for example, Gerbner, et al., 1994; Gerbner, Gross, Morgan & Signorelli, 1980; Gerbner, Gross, Signorelli, Morgan, & Jackson-Beeck, 1979). Although Gerbner's early work pointed to the importance of contextual attributes (e.g., Gerbner, 1970), the central content attribute with which cultivation analyses have been concerned has been and remains the *frequency* with which a particular "message" (e.g., violence is effective, women are submissive, substance use is a positive) occurs.

Observational learning theory focuses more on the context likely to facilitate or inhibit the learning and/or performance of depicted behavior. Although the frequency with which a particular behavior is portrayed is viewed as important, most observational learning studies are even more concerned with how other characteristics of a portrayal influence audience responses – characteristics such as the nature of the actor, the consequences associated with the behavior, the motivation underlying the behavior, and a number of other attributes that may operate to make a behavioral (or attitudinal) depiction seem more or less positive, useful, effective, and so forth (Bandura, 1977, 1986; also see Comstock, Chaffee, Katzman, McCombs & Roberts, 1978; Comstock with Paik, 1991; Roberts, 1989). This perspective has begun to guide a few content analyses that go beyond simple frequency counts of a particular kind of message to focus on a variety of contextual variables. In particular, the recently-released studies conducted by the authors of this report for Mediascope and the Office of National Drug

Control Policy (ONDCP) attempted to identify and assess contextual variables that have been noted as playing a role in observational learning from media portrayals.

The purpose of the ONDCP studies was to update and expand previous content analyses of substance use in popular mass media content. The goal was to establish baseline data on substance portrayals at the beginning of the 21st century in ways that would enable comparisons both among media and among substances. The studies were designed to extend and elaborate on earlier work in three ways:

a) by examining substantial samples of current content in the media most popular with adolescents – movies, popular music, and television;
b) by gathering similar information about all substances that elicit concern in terms of the youth audience – illicit drugs, alcohol, and tobacco;
c) by assessing the context of substance portrayals as well as the frequency – that is, by examining the *ways* in which substances and substance use are depicted.

The overriding question regarding the context of substance portrayals asks whether depictions of illicit drug, alcohol, or tobacco use are cast in a positive or negative light. A positive portrayal refers to one containing information (either visual or verbal) the net effect of which is to make the substance and its use look attractive, efficacious, and so on – in other words, portrayals that would tend to encourage viewers to engage in substance use. Negative portrayals are those that would tend to discourage use by making it look unattractive, dangerous, socially unacceptable, and so on. Note that the mere attachment of substance use to an attractive character can be a positive portrayal, just as use by an unattractive character can be seen as a negative portrayal.

Although the entertainment media may not present an accurate and representative version of reality (would they be entertaining if they did?), their content is nonetheless derived from the full range of human activity. Thus, it would be surprising if substance use didn't appear in the media along with love, sex, violence, jealousy, crime, politics, family, work, and all the other myriad domains of human experience that have provided grist for the media mill. Indeed, everybody can think of movie characters who smoke, television characters who drink, and popular songs that refer to drug use. However, it is important to keep in mind that a few prominent examples do not constitute a trend. As we have noted, there may be a danger among people concerned with the problem of substance use to view the media selectively – to notice alcohol consumption and ignore coffee or soft drinks, or to remember the movie scene that glamorizes drugs and ignore the one that shows the problems of addiction. Thus, specific examples, however dramatic and clear-cut they may seem, are poor indicators of what the media audience is exposed to on a day-to-day basis.

The critical question, then, is not what merely *exists* but what *prevails* in the media's treatment of substances and substance use. With that in mind, this report focuses on formal content analyses – studies that examine large, representative samples of media content and employ clear, consistently applied conceptual definitions and observational procedures. Concrete examples of media portrayals will be provided for illustrative purposes, but the main goal will be to provide a picture of what the *research* says about the frequency and nature of substance use portrayals in the media.

PORTRAYALS OF SUBSTANCE USE ON TELEVISION

Of the three media considered here, broadcast television seeks to obtain the broadest appeal and thus must, at least relative to motion pictures and music, avoid extremes in its portrayals that might offend significant numbers of viewers. Television, moreover, is subject to greater regulation of content, both internal and government-imposed. These factors influence not just substance portrayals, but violence, sex and language as well. As we will see, television content related to substances is considerably more conservative, more toned-down, than that of motion pictures and, depending on genre, popular music. Nonetheless, substance references occur in television programming, and with sufficient frequency to be of concern, especially given the large audience of children and adolescents who watch.

Alcohol

Alcohol consumption is much more common than tobacco or drug use on television. A number of "classic" shows have given drinking a central role – "Cheers" and "M*A*S*H," for example, featured a good deal of alcohol use by major characters. Focus groups we have conducted with teenagers establish that some current shows (e.g., "Drew Carey") and certain characters (e.g., Homer Simpson) are associated in the minds of young viewers with drinking. Perhaps because of the large audience of young people attracted by, and thus potentially influenced by, alcohol portrayals, we find that by far the majority of the systematic analyses of substance use portrayals in the media have focused on alcohol in television programming.

While the various reports on alcohol portrayals are difficult to compare due to inconsistencies in methods and measurements, they do establish that references to alcohol use – either visual, verbal, or both – occur several times during an average hour of prime time television programming. The group of studies that provides the most reliable historical

comparisons suggest a trend toward more frequent alcohol portrayals in the late 1970's and early 1980's, followed by an apparent decrease between 1984 and 1986 (Wallack et al., 1990). Even the 1986 programming, however, found references to alcohol in over three-fourths of prime time drama episodes, and portrayals of actual consumption in about half. More recent studies confirm that alcohol use is a regular occurrence on TV (Mathios et al., 1998). Our recent study for the ONDCP (Christenson, Henriksen & Roberts, 2000), which examined four episodes of each of the top 20 shows among teens and the top 20 shows among adults, found that 77% of episodes include references to alcohol.

Several earlier studies of alcohol portrayals in television have reported that alcoholic beverages are consumed more frequently or at a greater rate than non-alcoholic beverages. For this reason, our study assessed both the proportion of major characters consuming alcohol and non-alcoholic beverages and the amount of time major characters are shown consuming such beverages. Current television fare – at least that representing the top 20 prime-time series – differs somewhat from that reported in earlier studies. In the fall 1998-99 season 51% of all major characters (defined as having a continuing role and appearing in the series credits) drank an alcoholic beverage, while 74% consumed a non-alcoholic beverage. Similarly, one or more major characters was shown drinking alcohol for an average of 1.6 minutes of each hour during top-rated teen episodes and a non-alcoholic beverage for 2.4 minutes of each hour. Not surprisingly, the pattern was reversed in top adult episodes, with consumption of alcohol averaging 2.3 minutes per hour and consumption of non-alcoholic beverages averaging 1.8 minutes per hour. It appears, then, that current television has somewhat reduced the earlier dominance of alcoholic beverage consumption relative to the drinking of non-alcoholic beverages.

Equally important as the mere frequency of alcohol portrayals is the *nature* of those portrayals. Here the research suggests that when alcohol consumption does appear on television, it is usually in the form of what might be called an "incidental" or "gratuitous" activity. That is, characters drink or talk about drinking in the context of other activities, without the attachment of any direct message, either pro or con, about alcohol consumption. Drinking, according to the existing research, has generally been presented as a routine, problem-free activity. If anything, the overall message is largely positive, in that those who drink on television are more likely to be central characters, more attractive, and of higher status than those who don't drink. References to any possible negative consequences of drinking are rare (Mathios et al., 1998; Signorelli, 1987; Wallack et al., 1990).

Our own recent study (Christenson, Henriksen & Roberts, 2000) found that television paired alcohol consumption with negative consequences in 23% of those episodes that portrayed alcohol. We also found that television shows that made reference to alcohol contained few statements that could be interpreted as either "pro-use" (7%) or "anti-use" (8%). Explicit refusals occurred in 1% of the 119 episodes that portrayed alcohol use. Interestingly, one consistent device we found in television programs was the linkage between alcohol and humor. About 45% of the verbal or visual references to alcohol incorporated a humorous comment or gag.

Tobacco

Smoking was virtually routine in the television drama and comedies of the 1950's and 1960's. If direct memory doesn't serve to remind one of this fact, a few hours of "Nick at Night" – reruns on the Nickelodeon network – will make the point. Obviously, this higher prevalence is due to the higher smoking rates and general acceptability of smoking during

the early decades of television. Since that time, smoking rates on television decreased a good deal through the 1980's, but have recently rebounded a bit, according to the few previous studies of tobacco portrayals on television. In the period from 1950 through the early 1960's, smoking acts (that is, actual smoking or preparing to smoke) occurred about 4.5 times per hour in television drama. This compares to only once every three hours in the early 1980's (Breed & DeFoe, 1984; Cruz & Wallack, 1985). By 1992, the rate had moved up again to 1.2 times an hour, higher than the 1980's but still much lower than 30 or 40 years ago (Hazan & Glantz, 1995). Our study for the ONDCP (Christenson, Henriksen & Roberts, 2000) found that about one in five shows.(22%) portrays use of tobacco.

As with alcohol, the typical TV smoker has been a successful white male – in other words, an attractive role model for a substantial part of the audience. Over the years, male smokers on TV have outnumbered females by a factor of three to one (Hazan & Glantz, 1995).

None of these studies shows evidence that tobacco use has been generally condemned or portrayed as associated with negative consequences. Our study (Christenson, Henriksen & Roberts, 2000) found that negative statements were made about smoking in 23% of the television shows in which smoking occurred, although explicit refusals occurred in none of the 31 episodes that showed tobacco use.

Illicit drugs

Illicit drugs are mentioned with some frequency in current television programming and occasionally actual use is depicted as well. "That 70's Show," for instance, has depicted marijuana use, as has "ER" and "The Wayans Brothers." However, we find only two studies of illicit drug portrayals in television programming, both published in the 1970's. At that

time, illicit drug references of any kind – verbal or visual – were quite rare, occurring only once in every five hours of prime time fiction (Fernandez-Collado et al., 1978; McEwen & Hanneman, 1974). The only current data on television drug portrayals comes from our recent study, which found that illicit drug references on TV occur about as often as references to tobacco, in about one out of every five episodes of the top-rated shows.

Our study also suggests that when drug use appears on television, it is often portrayed negatively. For example, we found that four of the six television episodes (67%) that portrayed illicit drug use also depicted negative consequences. While none of the six episodes included explicit refusals of illicit drugs, 41% of them contained an anti-drug statement, while only 3% contained statements that could be interpreted as pro-use.

As mentioned in the section on depictions of alcohol, a common device in television programs was the linkage between illicit drug references and humor. About 45% of the verbal or visual references to illicit drugs incorporated a humorous comment or gag.

PORTRAYALS OF SUBSTANCE USE IN MOVIES

Even a casual observer can attest to the frequency of substance use – primarily drinking and smoking – in movies. Like popular music, movies are to some extent free of the necessity to cater to the broad audiences that television shows must attract, thus their portrayals tend to be more "on the edge" than those of TV. This applies to violence, sex, and language as well as substance use. In any case, the few systematic studies of substance use in motion pictures find widespread tobacco and alcohol use. Illicit drugs appear as well, but the recent ONDCP study was the first to examine illicit drug portrayals in a large sample of movies.

Alcohol

Alcohol consumption is so prolific in movies that examples are probably superfluous. Perhaps because its prevalence is taken for granted, we have identified only one content analysis of alcohol portrayals in motion pictures, besides our own recent study, that of Everett et al. (1998), cited above. The findings indicate that just under 80% of all films showed at least one major character drinking. As with tobacco, positive references outnumbered negative ones by more than a ten to one margin. And the demographics of the typical alcohol user were the same as for tobacco: adult, white, higher-status male. According to the authors: "Clearly, messages that expose the hazards of smoking and alcohol are not reflected in the behaviors of film characters who are potential models for children and adolescents..." (Everett et al., 1998, pg. 323).

Our recent study (Roberts, Henriksen & Christenson, 1999) contained similar findings. We found that 93% of the 200 most popular movie rentals in 1996 and 1997 included depictions of alcohol use. When alcohol was portrayed, no consequences were associated with consumption in 57% of the movies. One in five movies (20%) that included depictions

of alcohol contained a "pro-use" statement, while just under one in ten (9%) contained an "anti-use" statement.

Tobacco

Smoking has always played a prominent role in American film. Moreover, there is evidence that following a short decline in the 1980's, the frequency of on-screen smoking is on the rise again. According to *New York Times* writer Richard Klein: "On the silver screen, the sexiest, most bewitching stars make smoking look glamorous again." The examples he cites include: Leonardo DiCaprio in "Romeo and Juliet," Kurt Russell in "Escape From L.A.," Brad Pitt in "Sleepers," and Arnold Schwarzenegger in "True Lies" (Klein, 1997). Most of us could add to the list: Julia Roberts in "My Best Friend's Wedding," John Travolta in "Broken Arrow," Al Pacino in "Any Given Sunday," all three major characters in "The Blair Witch Project," and so on.

Hazan, Lipton, and Glantz (1994) analyzed 60 top-ranked feature-length films released between 1960 and 1990. Each film was divided into 5-minute segments and each segment was examined for the presence of "tobacco events," which included consumption as well as the presence of tobacco paraphernalia (e.g., ashtrays) and talk about tobacco. Over a third (36%) of the total of 1500 or so 5-minute segments contained one or more tobacco events. No significant time trend emerged; that is, rates of smoking portrayals were relatively constant across the 30-year period. The typical smoker was a successful, white, middle-class male, though the percentage of female smokers increased a bit in the 1980's. The strongest trend was found in the age of the smokers – in the 1960's only 21% of characters who smoked appeared to be in the 18-29 year range, versus 45% in the 1980's.

A follow-up study using the same methodology on a sample of 30 films from 1990 to 1996 reports even higher frequencies of tobacco use (Stockwell & Glantz, 1997). Moreover, cigar use made a significant appearance, especially by 1996, when each of five films selected depicted cigar smoking. In this study, 80% of male lead characters and 27% of female lead characters smoked tobacco, as did 52% of all major characters. This latter figure was lower than the 80% during the 1960's, but as the authors note, it was still considerably higher than the real-world smoking rate among similar high-status people. Everett, Schnuth and Tribble (1998) report that at least one major character used tobacco in 45% of movies sampled. They also note that essentially all (98%) top-10 motion pictures of the late 1980's and early 1990's contained at least one "tobacco event" (Everett, Schnuth & Tribble, 1998). Our own study of the top movie rentals of 1996 and 1997 (Roberts, Henriksen & Christenson, 1999) found that 89% depicted tobacco use.

Despite its well-documented dangers, tobacco use tends to be portrayed positively. In part this conclusion derives from the fact that attractive, high-status characters are doing most of the smoking. More direct evidence on this issue is provided by Everett, Schnuth and Tribble (1998). In their analysis, pro-tobacco events (that is, events that support or glamorize use) outnumbered anti-tobacco events by a ratio of ten to one. All but two of the 110 movies (98%) in their sample contained at least one positive tobacco event; by contrast, 37% of the sample contained a negative event. In the ONDCP study (Roberts, Henriksen and Christenson, 1999) explicit refusals to use tobacco occurred in 7% of those movies portraying tobacco, while negative statements were made about smoking in 22% of those movies.

Illicit drugs

Though movies have dealt with drug use far less frequently than with alcohol or tobacco, many examples can be cited. In 1955, "The Man With the Golden Arm" was among the first movies to tackle the issue of drug addiction. Drug use and drug addiction were portrayed in a number of movies from the 1980's and 1990's – for instance, "Bird," "Trainspotters," "Pulp Fiction," "Tommy Boy," and "Face-Off." Until our recent study for the ONDCP, however, no formal analysis had been done of drug-related messages and themes in motion pictures.

That study (Roberts, Henriksen and Christenson, 1999) found that about one in five of the top movies portrayed illicit drug use. Drug use engendered no consequences of any kind in 52% of the movies portraying drugs. Fifteen percent of these movies associated wealth and luxury with illicit drug use, and the same percentage included a "pro-use" statement of some kind. On the other side of the ledger, more than one in five of the movies (21%) included a character refusing to use illicit drugs, and 15% of movies that portrayed drug use also gave an anti-drug use statement.

PORTRAYALS OF SUBSTANCE USE IN POPULAR MUSIC

Interestingly, even though popular music has often been linked to substance use – particularly illicit drugs – little systematic research has been conducted on substance use themes in music lyrics or music videos. This seems an especially important omission given the importance of popular music to children and adolescents (Christenson & Roberts, 1998). Some important questions are addressed by our recent research (Roberts, Henriksen and Christenson, 1999), but many are not. Moreover, we considered only *music lyrics* in that study, not music videos. The following discussion, then, is heavier on examples and thinner on actual research results than one would hope.

Alcohol

Alcohol has always occupied a central role in American popular music. In his book on predominant themes in the history of popular songs, Cooper (1991) lists scores of songs over the years with a primary focus on drinking, including such titles as: "Chug-a-lug" (recorded by Roger Miller in 1964), "Margaritaville" (Jimmy Buffett, 1977), "Scotch and Soda" (Ray Price, 1983), and "Red Red Wine" (Neil Diamond, 1968). Scores more examples could easily be compiled, ranging from early blues (Cruz, 1988) on up to contemporary rap, rock and country music. And this is only considering the songs that incorporate drinking as a major theme. Many more songs mention drinking in the context of other subject matter. For example, in their 1997 country hit, the Mavericks sing of the sadness of lost love with these lines: "I can't sleep a wink anymore/ Ever since you walked out the door/ And I just started drinkin' to forget..." Alcohol appears quite often in rap music. Herd (1993) argues that in many rap songs drinking is promoted as an "accoutrement of identity, pleasure, sensuality and personal power." She quotes, among other lyrics, these lines from "8 Ball" by NWA:

"Old English 800 cuz that's my brand/ Take it in a bottle, 40, quart or can/ Drink it like a madman, yes I do..." (Note: The song refers to Old English 800 malt liquor.)

Obviously, then, popular music lyrics make references to alcohol with some frequency. Precisely how frequently, and whether the treatment is positive or negative, have, until recently, remained largely unanswered questions. Until the release of our study for the ONDCP, the only analysis of alcohol in music lyrics with a sample large enough to make reasonable estimates as to frequency was a study of country music lyrics from the mid-1970's (Chalfant & Beckley, 1977), in which 9% of 275 top-rated country songs mentioned alcohol use. As to the tone of the portrayal, the authors described the image of alcohol in country music as "ambivalent." On the one hand, most of the songs characterized drinking as morally wrong or problematic in some way. At the same time, many of these same songs presented alcohol consumption as a normal and effective way to loosen up, escape problems at work, get over a lost love, and so on. Connors and Alpher (1989) analyzed 58 country music songs with references to alcohol and came to a similar conclusion: drinking was often condemned (e.g., "How can a whiskey that's 6 years old whip a man that's 32?"), but just as often presented as normal, natural, and functional ("I went to hell when you left me, but heaven's just a drink away").

DuRant and his colleagues (DuRant et al., 1997) examined over 500 *music videos* recorded off three different television networks, and their results confirm the expectation that substance use portrayals differ by music genre. Rap videos were the most likely to portray alcohol use (27% showed one or more characters drinking), followed by rock (25%), country (21%) adult contemporary (19%), and rhythm and blues (17%). About one in five (19%) of

the entire sample of 500 videos portrayed drinking by a lead singer, with several showing repeated shots of both drinking and tobacco use.

The study we conducted for the ONDCP (Roberts, Henriksen and Christenson, 1999) examined 1,000 of the most popular songs from 1996 and 1997. We found that 17% contained references to alcohol, with significant differences according to the genre of music (for example, 75% of Rap/Hip-hop songs included such references). When alcohol was portrayed, no consequences were associated with consumption in 91% of the songs.

Tobacco

References to tobacco use in popular music lyrics are infrequent, but they do occur. Perhaps the classic example is Tex Williams's 1947 recording of "Smoke! Smoke! Smoke! (That Cigarette)," which is one of a very few songs which have adopted tobacco use as a central theme. We have encountered only one song in which chewing tobacco plays a central role, a recent country hit by Chris LeDoux entitled "Copenhagen" (Copenhagen is a brand of smokeless tobacco). Aside from those and a few other examples, tobacco use tends to be mentioned in passing, as in this line from "What I Got" (1996) by the alternative rock group Sublime: "Early in the mornin'/ Rising to the street/ Light me up that cigarette/ And strap shoes on my feet." Our recent content analysis (Roberts, Henriksen and Christenson, 1999) provides the first quantitative measure of the frequency of tobacco references in popular songs. Only 3% of the 1000 songs we examined in that study mentioned the smoking or chewing of tobacco, although 64% of Rap/Hip-hop songs contained such references.

Smoking appears in music videos more frequently than in lyrics. DuRant et al. (1997) found the highest number of smoking portrayals in rap videos, 30% of which showed smoking by one or more characters (mostly cigars). Country and R&B were lowest at about

10% and rock and adult contemporary were in between (22%). One or more major actors or performers was shown smoking in 19% of the total sample. The authors suggest: "This positive portrayal of tobacco and alcohol use in music videos is likely to have a considerable impact on adolescent's normative expectations and subsequent behaviors" (DuRant et al., 1997, p. 1134).

Illicit Drugs

Popular music has long been associated with illicit drug use. Indeed, it is impossible to separate the progressive rock of the late 1960's and early 1970's from the controversies surrounding drug lyrics (both real and purported) such as the Beatles' "Lucy In the Sky With Diamonds" or the Byrds' "Eight Miles High" (see Ward, Stokes & Tucker, 1986). More recent examples of drug references are just as easy to come by.

For example:

"I don't get angry when my mom smokes pot,
Hits that bottle and goes back to the rock" (Sublime, "What I Got," 1996)

"Pass the hay (marijuana) you silly slut,
Blaze it up so I can hit that bud,
Get me zoned and I'll be on,
Cuz I love to smoke upon hay" (Crucial Conflict, "Hay," 1997)

"I'm a thug, I'm a die high,
I be out in Jersey, puffin' Hershey" (Puff Daddy, "Can't Nobody Hold Me Down." 1997)

Actual drug use by musicians is also a matter of concern, especially given the tendency for many youth to adopt musicians as role models (Christenson & Roberts, 1998). Thus, the influence of the popular music must be considered to include not just the music itself, but the reputation of the musicians, whose substance use habits are often quite familiar to young

fans. A 1996 *Newsweek* cover story, "Rockers, Models and the Allure of Heroin," associates a number of artists with heroin use, and suggests that the effect of the association is to glamorize heroin use even when its use leads to death, as it has for a number of rock musicians (Schoemer, 1996).

Interestingly, given the salience of drugs in the popular music culture, our recent study provides the first quantitative evidence regarding the frequency of drug references in music. We found illicit drug references in 18% of the 1000 songs examined in the study (Robertson, Henriksen and Chirstenson, 1999), with dramatic differences between genres, ranging from 63% of top rap songs to less than 1% of country songs. In terms of the *nature* of the portrayals, the conclusion generally was that drugs tended to appear in a neutral context – that is, without being glamorized or condemned. We have found no published studies of illicit drug messages or imagery in music videos.

TRENDS IN SUBSTANCE PORTRAYALS

Are the media portraying substances differently than in the past? Assuredly the answer is yes, although gaps in the research and inconsistencies between studies in sampling and methodology limit our ability to describe the trends with as much confidence and in as much depth as might be hoped. As noted above, most of the formal content analyses have focused on television. Movies have received very little attention, and popular music has been almost completely ignored. Moreover, most of the research on television portrayals has dealt with alcohol to the relative exclusion of tobacco and, until very recently, the complete exclusion of illicit drugs.

Because we are in no better position than others to make intuitive judgments based on personal observation of the media, we limit the following points to conclusions or strong suspicions that can be supported by research data. In addition, the methodological inconsistencies mentioned above constrain the discussion to measures of *frequency*. There is simply not enough interpretable data to hazard judgments regarding the context or valence of substance portrayals – whether substance use is presented more positively than in the past, whether the consequences of use are dealt with more frequently, and so on. About all that can be said in this regard is that the nature of the characters who consume alcohol and tobacco in the media has remained stable. Today as always, the profile of on-screen drinkers and smokers simply reflects the population of major characters. Thus, substances tend to be used by successful, high-status people, usually white and usually male. In other words, we see no increasing trend for substance use to be associated disproportionately with "losers" in television and movies. The balance of the section is presented in bullet format, by medium.

Television

- Alcohol remains the substance most likely to be portrayed on television, with no large past or current changes in frequency; the most recent data indicate that three out of every four episodes of the most popular shows depict use of alcohol.
- Tobacco use on television decreased markedly from the 1950's and 1960s through the 1980's. It appears to have risen during the 1990's and currently, although it remains much less frequent than during the earliest decades of television. The most recent data indicate that about one in five (22%) episodes of the most popular shows depict use of tobacco.
- Illicit drug portrayals appear to be more frequent now than in the 1970's, although it is not possible to say whether the change is recent or occurred in the 1980's. Currently, about one in five episodes of the top shows portray illicit drug use.

Movies

- Alcohol consumption occurs in almost all movies (93%), and this has been the case for many years – there is no convincing evidence of any significant increase or decrease during the decades covered by the research.
- Tobacco use trends appear to parallel those for television: down from the 1950's and 1960's through the mid-1980's, up in the 1990's and probably still on the rise. Currently, about 89% of the most popular movies portray tobacco use.
- Illicit drug portrayals have not been studied sufficiently to warrant conclusions as to trends – we *suspect*, however, that they parallel the increase seen for television. Currently about one in five movies (22%) portray illicit drug use.

Popular Music

- Alcohol is the only substance studied over time, and the earlier research was on country music only – the frequency of alcohol references in country music appears to be much the same as in the 1970's. Recent data indicate that 17% of songs make reference to alcohol.
- Tobacco: insufficient data for trends - only 3% of the most popular songs currently refer to tobacco use.
- Illicit drugs: insufficient data for trends. Eighteen percent of the top songs in recent years include references to drugs.

RESEARCH ON EFFECTS OF SUBSTANCE PORTRAYALS

Surprisingly few studies have directly examined the relationship between substance portrayals in entertainment content and youth beliefs, attitudes, and behavior. Some attention has been paid to how children and adolescents respond to advertisements for tobacco and alcohol, and this research concludes that greater exposure to ads is associated with more positive alcohol and tobacco beliefs and attitudes, and or/higher use (for reviews see Brown & McDonald, 1995: Grube, 1993; Strasburger, 1995). Keeping with a focus on entertainment media, however, we have located 13 studies that purport to examine the impact of entertainment media on children's and adolescents' substance beliefs and behavior, and an additional three that look at adult responses. Unfortunately, all but two of the studies conducted with youth are correlational studies, leaving the direction of causality open to question whenever an association between media exposure and substance beliefs/behaviors is found. In addition, most of the surveys rely on measures of overall media exposure, implicitly accepting cultivation theory's assumption that substance portrayals in the media are so pervasive as to be unavoidable, and thus that overall amount of exposure is a reasonable surrogate for exposure to substance portrayals.

Two surveys conducted with adults seem to run counter to some of the alarms referred to at the beginning of this review. Signorelli (1987) found no overall relationship between use of alcohol and amount of television viewing in a national sample of U.S. adults, but she did argue for a "mainstreaming effect." That is, the difference in amount of alcohol use between college and non-college heavy television viewers was smaller than the difference between college and non-college light viewers, in line with the "mainstreaming" prediction that heavy television consumption wipes out expected differences between high school and

college educated sub-groups (see Gerbner, et al., 1994). However, Brown and McDonald (1995) note that after various statistical controls were applied to Signorelli's data, the direction of the difference between the two groups suggested that heavy television viewers were *less likely* to drink than light viewers, a finding that runs counter to cultivation theory's predictions that heavy viewing will produce greater alcohol consumption. Similarly, Wober (1987) interviewed adult viewers of television soap operas and found that relative to light viewers, heavy viewers were more likely to perceive a risk of alcohol consumption leading to disease. Such findings suggest that it is important to consider the nature of the substance portrayals. Wober reasons that soap operas often show negative consequences of drinking, and that this may be the lesson "learned" by heavy viewers. Wober also speculates that people who perceive the world as risky, thus who are more likely to view alcohol use as risky, may be those who are attracted to the "reassuring" world of soap operas. Whatever the explanation for the findings of these two studies, they provide little basis for claims that entertainment television promotes alcohol use among adults.

The picture changes somewhat when attention turns to the young audience. Several studies report weak, positive associations between adolescents' exposure to television and alcohol use and beliefs. Neuendorf (1985) found that in a sample of 10- through 14-year olds, heavy television viewers were more likely than light viewers to believe that "people who drink are happy" and that one had to drink "to have fun at a sporting event." Tucker (1985) found that among high school boys, heavy television viewers reported consuming alcohol more often than light television viewers; however, no relationship between viewing and alcohol consumption emerged for high school girls. On the other hand, a longitudinal study of adolescents in New Zealand found that girls who watched more television at ages 13 and 15

years consumed more alcohol at 18 years (Connolly, Casswell, Zhang & Silva, 1994), but there was no such relationship among boys.

Two of the youth-oriented surveys focused specifically on exposure to portrayals of substance use, rather than on media exposure in general. The first was a study of the impact of alcohol advertising (Atkin, Hocking, and Block, 1984), which found no relationship between teenage boys' or girls' alcohol consumption and their reports of how often they saw television characters consuming alcohol. The second survey examining the relationship between direct exposure to substance portrayals and youngsters' substance behavior and beliefs (Distefan, Gilpin, Sargent and Pierce, 1999) related teenagers' smoking habits to the on-screen smoking portrayals and off-screen smoking behavior of their favorite movie stars, assuming that star preference located increased exposure. They first divided a sample of over 6,200 California adolescents into those who had *ever* smoked and those who had *never* smoked, then further split the group of youngsters who had never smoked into those who were and those who were not "susceptible" to smoking in the future. Compared to the favorite stars of those who had never smoked, teenaged smokers preferred movie stars who smoked both on and off the screen. Moreover those teens who had never smoked but who preferred stars who smoked scored higher on the "susceptibility to smoking" measure than nonsmokers who preferred stars who did not smoke. Arguing that favorite movie stars are important role models for youth smoking behavior, Distefan and her colleagues characterize their findings as evidence that stars who smoke on and off screen may encourage youth to smoke.

Moving beyond the survey-based studies discussed thus far, we found three *experimental* tests of whether media content portraying substance use causes changes in viewers' beliefs or

behavior. All three studies focus on television portrayals of alcohol consumption, one looking at the impact on young adults and the other two at the impact on adolescents. Among young adults, exposure to an episode of Dallas that either did or did not include drinking scenes made no difference in viewers' drinking behavior immediately following viewing (Sobell, Sobell, Riley, Klajner, Leo, Pavan & Cancilla, 1986). However, two experiments assessing beliefs and attitudes of younger viewers do indicate that observing alcohol portrayals can influence alcohol-related beliefs. In one study, children were divided into three groups; one group watched no TV, and the others watched an episode of M*A*S*H in which drinking scenes were either included or deleted. Those who viewed the show with drinking scenes were more likely than youngsters from either of the other two groups to select an alcoholic beverage as more appropriate than water for serving to adults (Rychtarik, Fairbank, Allen, Foy & Drabman, 1983). In the other study, Kotch, Coulter & Lipsitz (1986) found strong support for observational learning theory's contention that portrayed effects of observed behavior are important determinants of whether youngsters develop a positive or negative view of the behavior. In this experiment, fifth and sixth grade boys who saw videotaped programming containing scenes in which negative consequences were associated with drinking were less likely to believe in good effects of alcohol than were boys who saw the scenes with the negative effects edited out. Thus, there is at least some experimental evidence that television portrayals of alcohol consumption can influence the beliefs of young viewers, that it may teach them that adults prefer alcohol, and that a lack of negative consequences increases positive beliefs about the benefits of alcohol consumption.

Several investigators have looked for a relationship between exposure to various kinds of popular music and adolescent substance use. Fundamentally, research of this type identifies one or two music genres as most likely to portray and/or promote substances, then looks to

see if youngsters who prefer these genres engage in more tobacco, alcohol, or illicit drug use. In one of the earliest studies, Robinson, Pilskain and Hirsch (1976) found that high school boys who were fans of "protest rock," – music characterized as articulating anti-establishment, anti-war, pro-drug use and pro-free-love messages – were more likely than boys who were not fans to report they had used marijuana (56% to 22%). Arnett (1991a, 1991b) and Martin, Clarke and Pearce (1993) also found a preference for heavy metal music to be associated with illicit drug use. For example, Arnett (1991b) reports that 50% of heavy metal fans said they had used marijuana and 20% cocaine, compared to 16% and 0% among those who did not like heavy metal. Several other studies have identified youth who use illicit drugs, then compared their music preferences to the preferences of youngsters who do not use drugs. Compared to a sample of "normal" high school students, chemically-dependent teenagers overwhelmingly nominated heavy metal as their preferred music (Eagle, Hawkinson & Stuessy, 1989; also see King, 1988). Similarly, a recent survey of over 1500 adolescents in New Zealand found that devotees of "Rave" music styles (identified as rave, techno, hardcore, jungle, and trance) were substantially more likely than teens who preferred other kinds of music to smoke, drink alcohol, or use a wide range of illicit drugs (Forsythe, Barnard & McKeganey, 1997). Finally, one survey looked at music video exposure and found that 14-through 16-year-olds who scored high on an index of risk behaviors, which included drinking alcohol, more frequently watched music videos than those who scored lower (Klein, Brown, Childrer, Oliveri, Porter & Dyker, 1993).

Taken together, studies of music preference and risk-taking behavior leave little doubt that kids who engage in highly risky behaviors, especially substance use, are more likely than non-risk takers to prefer the more extreme music genres in any given time-period (e.g., protest rock in the 60's, heavy metal in the late 80's and early 90's, rave in the late 90's). This

does not mean, however, that listening to a particular music genre causes risk taking. To the contrary, there is substantial evidence that high risk takers are also high sensation seekers, and that both traits are likely to motivate an individual to orient toward the most extreme music. Moreover, to the extent that any particular music genre (or for that matter, any particular kind of media content) is labeled extreme or deviant, it is highly likely to attract fans who, for whatever reason, have themselves been labeled deviant. In other words, if a youngster likes heavy metal or rave music, it does not mean that he or she is in trouble. However, if a youngster is in trouble, then it is highly likely that they will prefer one of the extreme music genres. Keith Roe (1995) has coined the term "media delinquency" to refer to the close association between "disvalued" media and more standard forms of delinquency. He shows how outsider status (most likely to derive from being labeled "deviant" in the school context) leads youngsters to engage in disvalued or delinquent behaviors, including choosing extreme forms of media content.

To note that exposure to extreme media content, especially the most edgy of music genres, is not the first cause of delinquent behavior, however, is not to absolve media from playing a significant role in later behavior. Christenson and Roberts (1999) discuss research showing that heavy metal fans are highly likely to select heavy metal performers as their role models, and that kids who are particularly troubled (depressed, angry, alienated) are also particularly likely to be attentive and responsive to content that promotes depression, anger, and alienation. In other words, although it is unlikely that "delinquent" media content is a "first cause" of such "deviant" behaviors as drinking to excess or illicit drug use, there is very good reason to believe that such content may amplify and exacerbate the problems already plaguing troubled youngsters.

Overall, then, the evidence from 11 surveys and 2 experiments with youngsters is mixed. Stronger associations between media exposure and substance-related outcomes emerge when exposure measures somehow assess explicit substance portrayals as opposed to overall media use. There also tend to be stronger associations when media or substance portrayal exposure is related to substance beliefs or attitudes as opposed to actual behaviors. Finally, there is also reason to be concerned that some of these portrayals are particularly likely to influence a small sub-segment of youth – those who are at risk or otherwise labeled deviant or troubled for a host of reasons that may, initially, have little to do with exposure to media portrayals (see Christenson & Roberts, 1999).

But perhaps the most important information provided by this review of research on the effects of media portrayals of substance use is how little empirical research has addressed the issue, particularly research that would address issues of causality.

RECOMMENDATIONS FOR FUTURE RESEARCH

This review of research on substance use portrayals and their effects on the young audience has raised more questions than it has answered. Clearly there is reason for the questions and concerns outlined in the beginning of this paper. The research is mixed; some of it provides tentative evidence that extant media portrayals may help contribute to the likelihood that children and adolescents will adopt tobacco, alcohol, and/or illicit drugs. At the same time, there is tentative evidence that portrayals of substance use in entertainment media can be shaped in ways that mediate against youth's adoption of these substances. Unfortunately, the operating term is "tentative;" there simply are not enough studies directly addressing relevant dimensions of the issue to permit firm conclusions. The following suggestions are offered as a starting point for beginning to fill in some of the gaps in our knowledge.

Analysis of Content

Although content analysis cannot answer effects-related questions, it is nonetheless important to monitor the prevalence and nature of substance portrayals in popular media over time. One-time "snapshot studies," no matter how well designed and conducted, can only provide baselines, and it is difficult to say whether a baseline is "high" or "low." The question is always: "Compared to what?" This difficulty, as we have noted, is compounded by gaps in the research and crucial inconsistencies between studies. In our view, then, the greatest need in terms of content analysis is for:

- Regular, ongoing, updates of entertainment media substance portrayals using comparable measures and samples.

- Deeper contextual analysis in general. Further research needs to move beyond basic counts of frequency-of-appearance, to examine contextual variables that make such portrayals more or less salient, more or less attractive, more or less influential. There also need to be more holistic analysis of complete "texts" (movies, songs, shows).

Other high priority areas for further research include:

- Studies on music videos, which heretofore have been overlooked.
- Additional research on popular music lyrics, which have received less attention than television and movies, despite their singular importance in youth culture.
- For movies and television, additional studies on illicit drug portrayals.

Message processing and interpretation

Focus groups we have conducted with young people repeatedly demonstrate that their perceptions and interpretations of media substance portrayals differ – sometimes radically – from those of adults. This applies especially to judgments about the nature of portrayals – whether substance use is glamorized or deglamorized, whether depicted consequences are positive, negative, or ambiguous, whether humor influences the overall message, and so on. For instance, one of the television episodes we analyzed for an earlier study shows a party-goer nearly dying as a result of an overdose of alcohol and Ecstasy. Typically, adults would characterize this as clearly a negative consequence. Yet most of the teens in our focus groups balanced this result with the fact that the party-goers portrayed in the episode were having a good time doing essentially the same thing as the character who nearly died, thus ending with a judgment of "balanced" or "ambiguous" consequences. This is just one of several such examples produced in our focus group interviews. Thus, we believe that a primary goal of research on interpretation processes should be to:

- Identify for various subgroups of youth the qualities of believable "positive" portrayals (i.e., those that would tend to encourage substance use) and of believable "negative" portrayals (i.e., those that would tend to discourage substance use).

Other high priority research areas within the domain of processing and interpretation include studies on:

- How the interpretation of music lyrics interacts with the "sound" of the music (i.e., we know some music is more arousing than other, and we know that arousal affects message interpretation; we need to explore how the sound of different kinds of music might influence interpretation of lyrics about various substances).
- How the interpretation of the songs interacts with the visual information provided in music videos;
- The effects of portrayed substance use on viewers' perceptions of characters in movies and television shows (this is based on focus group suggestions that characters may be seen as more interesting or "edgy" if they smoke or drink), and the degree to which character perceptions influence message interpretations.

Research on effects

- There needs to be a good deal more attention paid to research designs that will indicate whether or not there are causal relationships between media and attitudes or behaviors related to substance use. Experimental designs (both within the laboratory and in the field) and longitudinal research to examine changes over time are needed if we are to be certain about either the facilitating or inhibiting role of substance portrayals in entertainment media.

- Effects research must focus more closely on exposure to actual portrayals of substance use, taking into account the nature and context of those portrayals, rather than simply looking at exposure to media in general.

REFERENCES

Arnett, J. (1991a). Adolescence and heavy metal music: From the mouths of metalheads. *Youth and Society, 23*(1), 76-98.

Arnett, J. (1991b). Heavy metal music and reckless behavior among adolescents. *Journal of Youth and Adolescence, 20*, 573-592.

Atkin, C., Hocking, J. & Block, M. (1984). Teenage drinking: Does advertising make a difference? *Journal of Communication, 34*(2), 157-167.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Brown, J.D., & McDonald, T. (1995). Portrayals and effects of alcohol in television entertainment programming. In S.E. Martin (Ed.), *The effects of the mass media on the use and abuse of alcohol*. Bethesda, MD: U.S. Department of Health & Human Services (pp. 133-150).

Christenson, P.G., Henriksen, L., & Roberts, D.F. (2000). *Substance use in popular prime time television*. Washington, DC: Office of National Drug Control Policy.

Christenson, P.G., & Roberts, D.F. (1983). The role of television in the formation of children's social attitudes. In M.J.A. Howe (Ed.), *Learning from television: Psychological and educational research*. London: Academic Press (pp. 79-99).

Christenson, P.G., & Roberts, D.F. (1998). *It's not only rock and roll: Popular music in the lives of adolescents*. Cresskill, NJ: Hampton Press.

Comstock, G., Chaffee, S. Katzman, N., McCombs, M., & Roberts, D. (1978). *Television and human behavior*. New York: Columbia University Press.

Comstock, G. with Paik, H. (1991). *Television and the American child*. San Diego, CA: Academic Press.

Connolly, G.M., Casswell, S., Zhang, J.F., & Silva, P.A. (1994). Alcohol in the mass media and drinking by adolescents: A longitudinal study. *Addiction, 89*, 1255-1263.

Cruz, J., & Wallack, L. (1986). Trends in tobacco use on television. *American Journal of Public Health, 76*(6), 698-699.

Distefan, J.M., Gilpin, E.A., Sargent, J.D., & Pierce, J.P. (1999). Do movie stars encourage adolescents to start smoking? Evidence from California. *Preventive Medicine, 28*, 1-11.

Eagle, C., Hawkinson, B. & Stuessy, J. (1989, July). *The relationship of music preference between chemically dependent and general high school adolescents.* Report prepared for the Parents' Music Resource Center, Arlington, VA.

Federman, J., Carbone, S., Chen, H., & Munn, W. (1996). *The social effects of electronic interactive games: An annotated bibliography.* Studio City, CA: Mediascope.

Fernandez-Collado, C.F., Greenberg, B.S., Korzenny, F., & Atkin, C. K. (1978). Sexual intimacy and drug use in TV series. *Journal of Communication, 28*(3), 31-37.

Forsyth, A.J., Barnard, M., & McKeganey, N.P. (1997). Music preference as an indicator of adolescent drug use. *Addiction, 92*(10), 1317-1325.

Gerbner, G. (1970). Cultural indicators: The case of violence in television drama. *The Annals of the American Academy of Political and Social Science, 388*, 69-81.

Gerbner, G., Gross, L., Morgan, M., & Signorelli, N. (1980). The "mainstreaming" of America: Violence profile no. 11. *Journal of Communication, 30*(3), 10-29.

Gerbner, G., Gross, L., Signorelli, N., Morgan, M., & Jackson-Beeck, M. (1979). The demonstration of power: Violence profile no. 10. *Journal of Communication*, 29(3), 177-196.

Gerbner, G., Gross, L., Morgan, M., & Signorelli, N. (1994). Growing up with television: The cultivation perspective. In J. Bryant & D. Zillmann (Eds.), *Media Effects: Advances in theory and research.* Hillsdale, NJ: Lawrence Erlbaum (pp.17-42).

Grube, J.W. (1993). Alcohol portrayals and alcohol advertising on television: Content and effects on children and adolescents. *Alcohol Health and Research World, 17*(1), 61-66.

Hazan, A. R., & Glantz, S.A. (1995). Current trends in tobacco use on prime-time fictional television. *American Journal of Public Health, 85*(1), 116-117.

Henriksen, L., & Roberts, D.F. (in press). Mass media, risk, and adolescents. In M.K. Rosenheim & M.F. Testa (Eds.), *Trends in the well-being of children and youth.* Thousand Oaks, CA: Sage.

Huston, A.C., Donnerstein, E., Fairchild, H., Feshbach, N.D., Katz, P.A., et al., (1992). *Big world, small screen: The role of television in American society.* Lincoln, NB: University of Nebraska Press.

King, P. (1988). Heavy metal music and drug abuse in adolescents. *Postgraduate Medicine, 83*(5), 295-304.

Klein, J.D., Brown, J.D., Childers, K.W., Oliveri, J., Porter, C, & Dykers, C. (1993). Adolescents' risky behavior and mass media use. *Pediatrics, 92*(1), 24-31.

Kotch, J.B., Coulter, M.L., & Lipsitz, A. (1986). Does televised drinking influence children's attitudes toward alcohol? *Addictive Behaviors, 11*(1), 67-70.

Martin, G., Clarke, M. & Pearce, C. (1993). Adolescent suicide: Music preference as an indicator of vulnerability. *Journal of the Academy of Child and Adolescent Psychiatry, 32*(3), 530-535.

Mathios, A., Avery, R., Bisogni, C., & Shanahan, J. (1998). Alcohol portrayal on prime-time television: Manifest and latent messages. *Journal of Studies on Alcohol, 59*, 305-310.

McEwen, W.J., & Hanneman, G. J. (1974). The depiction of drug use on television. *Journal of Drug Education, 4*(3), 281-293.

McLeod, J.M. & Reeves, B. (1980). On the nature of mass media effects. In S.B. Withey & R.P. Abeles (Eds.), *Television and social behavior: Beyond violence and children*. Hillsdale, NJ; Lawrence Erlbaum (pp. 17-54).

Neuendorf, K.A. (1985). Alcohol advertising and media portrayals. *Journal of the Institute of Socioeconomic Studies, 10*, 67-78.

Roberts, D.F. (1989). The impact of media portrayals of risky driving on adolescents: Some speculations. *Alcohol, Drugs and Driving, 5*(1), 13-20.

Roberts, D.F. (1993). Adolescents and the mass media: From "Leave It to Beaver" to "Beverly Hills 90210." *Teachers College Record, 94*(3), 629-643.

Roberts, D.F. (2000, in press). From Plato's Republic to Hillary's village: Children and the changing media environment. In R.P. Weissberg, O. Reyes, & H.J. Walberg (eds.), *Trends in the well-being of children and youth*. Thousand Oaks, CA: Sage.

Roberts, D.F., Foehr, U.G., Rideout, V., & Brodie, M (1999). *Kids & media @ the new millenium*. Menlo Park, CA: Kaiser Family Foundation.

Roberts, D.F., Henriksen, L., & Christenson, P.G. (1999). *Substance use in popular movies and music*. Washington, DC: Office of National Drug Control Policy.

Roberts, D.F., & Maccoby, N. (1985). Effects of mass communication. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology*, 3rd ed. vol 2, *Special fields and applications*. New York: Random House (pp. 539-598).

Robinson, J., Pilskain, R., & Hirsch, P. (1976). Protest rock and drugs. *Journal of Communication, 26*(4), 126-136.

Roe, K. (1995). Adolescents' use of socially disvalued media: Towards a theory of media delinquency. *Journal of Youth and Adolescence, 24*, 617-631.

Rychtarik, R.G., Fairbank, J.A., Allen, C.M., Fox., D.W., & Drabman, R.S. (1983). Alcohol use in television programming: Effects on children's behavior. *Addictive Behaviors, 8*(1), 19-22.

Schomer, K. (1996, July 15). Overdosing on fame: Heroine is now a style as well as a substance. *Newsweek, 128*(3), 53.

Signorelli, N. (1987). Drinking, sex and violence on television: The cultural indicators perspective. *Journal of Drug Education, 17*(3), 245-260.

Sobell, L.C., Sobell, M.B., Riley, D.M., Klajner, F., Leo, G., Pavan, D., & Cancilla, A. (1986). Effect of television programming and advertising on alcohol consumption in normal drinkers. *Journal of Studies in Alcohol, 47*(4), 333-340.

Strasburger, V. (1995). *Adolescents and the media: Medical and psychological impact.* Thousand Oaks, CA: Sage.

Tucker, L.A. (1985). Television's role regarding alcohol use among teenagers. *Adolescence, 20*(79), 593-598.

Vallone, R.P., Ross, L., & Lepper, M.R. (1985). The hostile media phenomenon: Biased perception and perceptions of media bias in coverage of the Beirut massacre. *Journal of Personality and Social Psychology, 49*, 577-585.

Van Evra, J. (1990). *Television and child development.* Hillsdale, NJ: Lawrence Erlbaum.

Wallack, L., Grube, J.W., Madden, P.A., & Breed, W. (1990). Portrayals of alcohol on prime time television. *Journal of Studies on Alcohol, 51*(5), 428-437.

Ward, E., Stokes, G., & Tucker, K. (1986). *Rock of ages: The Rolling Stone history of rock and roll.* New York: Rolling Stone Books.

Wartella, E., & Reeves, B. (1987). Communication and children. In C.R. Berger & S.H. Chaffee (Eds.), *Handbook of communication science.* Newbury Park, CA: Sage (pp. 619-650).

Wilson, B.J., Kunkel, D., Linz, D., Potter, J., Donnerstein, E., Smith, S., Blumenthal, E., & Gray, T. (1996). Television violence and its context: University of California, Santa Barbara study. In *National Television Violence Study, Scientific Papers* (pp. 5-268). Studio City, CA: Mediascope.

Wober, M. (1987). Perceived risk of disease from alcohol, asbestos and AIDS: Links with television viewing? *Health Education Research, 2*(3), 175-184.

The Henry J. Kaiser Family Foundation
2400 Sand Hill Road
Menlo Park, CA 94025
650-854-9400
Fax: 650-854-4800
www.kff.org

Washington Office:
1450 G Street NW, Suite 250
Washington, DC 20005
202-347-5270
Fax: 202-347-5274

The National Center on Addiction and Substance Abuse at Columbia University
152 W 57th Street
New York, NY 10019-3310
212-841-5200
Fax: 212-956-8020
www.casacolumbia.org

Additional free copies of this publication (Document #3000) are available on our website, **www.kff.org**, or by calling the Kaiser Family Foundation's publication request line at **800-656-4533**.

99 1452-01
February 2000